

had "the happiest effect." R. Tr. valer. ammon. zi.; tr. opii acet. gtt. xlviii.; camph. gr. xxxvi.; ext. hyoseyam. gr. xii.; sacch. alb.; acaciæ mucilag. āā q. s. ft. mist. ℥vi.—S. A teaspoonful every hour. By this the *fits* were stopped, and returned only when it was neglected. The labour was got through with safely.

The *first* of the three cases where the character of the convulsions is not given, was interesting principally for the loss of mind the woman experienced for forty-eight hours, during which time she could not be made to comprehend that her child was still-born. The case seems to have been one of stupor, or congestion of the brain rather than of convulsions.

In the second case the woman had two attacks, one before, and one soon after the birth of the child. She remained insensible some time after the first convulsion. She was bled after each attack, ℥xx. and ℥xv. respectively, and after the last bleeding took tr. opii gtt. xl.

In the third case the convulsions were very slight and relieved by the tr. assafœtida; indeed, had it not been recorded as a case of convulsions by the residents in attendance, I should not have given it a place under this head.

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ART. V.—*On the Congestive Fever of Mississippi, with Cases.* By R. G. WHARTON, M. D., of Grand Gulf, Miss.

Congestive fever is so common a disease in this section of country, and its symptoms are so strongly marked, that it is almost as well known to the planter as to the physician. It has not, however, prevailed to any extent in many parts of the Union, and a short sketch of its history as it occurs here in its most usual form, with a detail of a few cases, may not be unacceptable to some of your readers. For the last twelve years it has prevailed as an endemic in this state and Louisiana, and perhaps in some of the other southern states. When it first appeared, it proved fatal in nearly every case, causing a degree of terror at its approach unequalled, except by that produced by the cholera. It is now in a great measure disarmed of its mortality, proving fatal in not more than one case in twelve or fifteen under proper treatment timely administered. It usually prevails from June to October, all ages and temperaments being liable to its attacks. Children under ten years of age are comparatively free from its ravages, and persons from twenty to thirty are most subject to it.

Congestive fever makes its approach in rather a gradual manner; the patient often complaining for several days of uneasy feelings, is taken perhaps with fever attended with severe pains in the back, knees, and limbs, and some-

times in the head, becomes unusually restless; the pulse is quick, unsteady, irregular; skin not very hot; there are occasional flashings of heat, succeeded by partial perspirations; the breathing is hurried, and very much oppressed; there is often nausea or vomiting, though not always; the tongue is usually pale and flabby, sometimes red; the bowels generally unaffected; in the worse cases there is profuse watery diarrhœa. By degrees the heat of skin passes off with profuse perspiration; the hands and arms feel rather cool; the pulse becomes quicker; the breathing still more oppressed; the patient every few seconds making a deep inspiration, and this symptom is so striking that it is usually sufficient to indicate the disease to the physician as soon as he enters the sick chamber; the restlessness increases; the perspiration becomes more profuse, standing in large drops on the head and face; gradually it feels sticky and cold, especially on the extremities; the hands now become shrivelled, and very cold and disagreeable to the touch, feeling like a corpse; the coldness rapidly extends up the limbs to the body; the pulse is very small and quick, beating from 120 to 140 per minute; the patient is so restless that he cannot remain in one position for a second; his great complaint being that he cannot get his breath; sometimes he will get out of bed a very short time before his death; the pulse becomes imperceptible at the wrist often eight or ten hours before death, though sometimes it can be felt till the last breath. The patient usually has great thirst, and complains of a feeling of inward heat. In other cases there is no thirst at all; the body is hot and bathed in a clammy sweat in nearly all cases. I have seen two cases, however, where even the body was cold, except just around the heart, and in one of these the whole surface was dry, causing it to look and feel like a mummy. In a short time after the symptoms have become so violent the patient generally expires in great agony. The disease when it proves fatal, generally lasts from twenty-four to sixty hours. When proper remedies are timely administered, after a longer or shorter time, the restlessness abates; the skin becomes drier; the pulse slower and fuller, and the heat returns in a very gradual manner to the hands and feet. This is a very slow process, as it often requires from twenty-four to forty-eight hours for the heat to travel from the knees to the extremities of the toes, and while it is returning, it requires close attention to see that it is constantly advancing.

The above is a rough outline of the most marked phenomena of this disease as it usually occurs. It does not, however, commence in any regular manner, and it is only from considerable observation of its various modes of aggression that we are able to anticipate its probable occurrence in many cases. It often commences as a simple intermittent, and the reaction not taking place, the cold stage is rapidly merged into the most violent form of congestion. In other cases the reaction does take place; during the fever the patient suffers much from severe pains in the limbs, knees, back, and around the loins; there is soreness on pressure of the abdomen; the tongue perhaps looks red; thirst, vomiting, probably diarrhœa; the pulse is unsteady, ir-

regular; the patient is very restless. Gradually the fever declines, free perspiration takes place; the pains are all relieved, and the patient appears to be doing well. By close observation, however, it will be perceived that the quickness of the pulse does not subside, but on the contrary increases, that the perspiration is very profuse, that the hands and feet feel rather cold. The breathing is sometimes in cases like this perfectly easy until the disease is very far advanced, when it is always very much affected. The patient is drowsy and stupid, though he answers readily when aroused. The extremities now rapidly become cold, and all the symptoms above detailed quickly supervene. Congestion may and does supervene on any and every disease of the summer, attended with great debility and prostration: on intermittent, remittent, and continued fevers—gastritis, gastro-enteritis, and I had one fatal case which supervened on a severe attack of the epidemic influenza.

*Pathology.*—The phenomena presented by this disease evidently indicate an oppressed or perhaps weakened state of the heart and arteries, with great torpor of the capillary system. The breathing is greatly disturbed on account of the rush of blood to the centre, and the action of the heart becomes tumultuous and sometimes irregular. The coldness and lividness of the extremities with the profuse perspiration, depend on the torpor of the capillary system. It is difficult to explain the cause of this torpid state of the capillaries. Mere debility of the heart's action is not sufficient to account for it, as such a condition of the circulation often occurs without being accompanied by torpor of the capillaries. Is it not more consistent with sound pathology and with the condition of the system in this disease, to regard the torpid state of the capillary circulation as the cause of the weakened or oppressed action of the heart and arteries? In many cases of congestive fever, the profuse perspiration with coolness or coldness of the extremities and lividness of the face, occur among the first symptoms, before there is any dyspnoea or oppression of breathing, or much disturbance of the heart's action. If the capillary torpor be not the immediate cause of the oppressed state of the heart and arteries, as is difficult to be proved, may they not both be referred to an ulterior cause, viz. a disordered condition of the function of innervation? We know very well from experience that stimulants which act on the heart and arteries, will always of themselves be found insufficient to relieve the congestion, and that tonics, particularly quinine, together with external irritants, which act directly on the extreme vessels, will do most good. There is some analogy between the cold stage of an intermittent and the stage of the system in congestion; the difference consisting in the greater and more permanent capillary torpor, which exists in congestive fever. There is a still greater analogy between the collapse of cholera and congestion. The watery discharges which are essential to the first, not being necessarily present in the latter. The name congestive fever which is usually applied to this disease is therefore manifestly inappropriate, as there

are present none of the characteristics of fever, and as it is liable to convey incorrect ideas of the disease on account of the usual associations of the word fever. The simple term congestion is much more in accordance with sound pathological, as well as therapeutical principles.

*Treatment.*—The indications of cure from a review of the symptoms are evidently 1st, to restore the capillary as well as general circulation, and with it the animal heat, thereby relieving the state of congestion; 2d. To excite the various secretions, particularly that of the liver. The remedies on which we rely for fulfilling the first indication are stimulants both external and internal. When called to a patient in a state of congestion, with coldness of the extremities, profuse cold and clammy sweat, hurried and oppressed respiration, quick and weak pulse, and great restlessness, it is necessary to commence in earnest with the most active means for fulfilling the first indication. A large sinapism should be applied without delay, over the abdomen, in order to relieve the great oppression under which the patient is suffering; and epispastic plasters should be placed along the inside of the legs and arms. The latter are much to be preferred to sinapisms in these places, as the torpor of the capillaries is only to be overcome by such powerful means, and also on account of the profuse perspiration constantly pouring out of the surface, which seems to prevent the sinapisms from taking effect on the extremities. The blisters will usually draw nearly as soon as the sinapisms, and their effects are decidedly preferable. While these are preparing, we should order large doses of quinine, capsicum, and camphor, every hour or two hours. In very severe cases of congestion, and where it has taken a strong hold on the system, I have usually ordered a prescription like the following:—℞. quin. sulph. gr. vii; pulv. capsici, camphor, ʒʒ gr. v. m. ft. pulv. omni vel secunda hora sumendus; combining each dose with four or five grains of calomel till 15 or 20 grains of this are taken. It will often be necessary to give these large doses every hour or two for 24 or 48 hours before any effect is produced by their exhibition. As soon as the sinapism on the stomach excites much pain, it will be best to take it off, and apply a blister to the same part, its action being more permanent in assisting to rouse the action of the torpid viscera. The legs and thighs ought to be rubbed frequently with oil of turpentine and powdered capsicum, to assist in restoring the animal heat. There is often present an obstinate vomiting which interferes very much with the regular exhibition of the medicines; and I have occasionally found it to be caused by the camphor. By substituting a teaspoonful of ol. terebinthinæ for this, we will frequently be enabled to obviate this unpleasant symptom. In slight cases of congestion, where we see the patient in time, and where the disease comes on gradually, such large doses of quinine are not necessary. I have, however, seldom given to an adult less than four grains of this medicine combined in the above proportions, every hour or two, according to the circumstances of the case. To those who are inexperienced in the exhibition of these large doses of

quinine, they may seem unnecessarily large at least, if not dangerous. But the practice is not a new one, and we can appeal with confidence to the experience of every practitioner in this section of country, for its necessity. I have myself given in one bad case, at least,  $\frac{3}{4}$ ss. of it, with perfect success, and there was no deafness or headache following. In congestion, there seems to be the most perfect insensibility to the action of all stimulants and tonics, so that they may be administered in almost any dose with impunity. In this town, quinine was scarcely used at all in congestion, till the latter part of the summer of 1837. The great mortality which prevailed then, when contrasted with the present success in this disease, is to us who have witnessed it, one of the strongest proofs which could be adduced of its inestimable value. Other stimulants, particularly brandy, is often of great service in some rapid cases attended with profuse watery discharges, as it is prompt in its action, and gives time for the exhibition of the more permanent tonics. In the July No. of this Journal, Dr. Parry in treating of the congestive fever as it prevails in Indiana, says, that internal stimulants either do harm, or do no good. He confesses, however, that he has only seen them used in a few cases, and these proved fatal. Such practice as he pursues, would, I feel confident, prove fatal in two-thirds of the severe cases of congestion which prevail in this section. I do not, however, condemn it, as it is deduced from experience in a very different latitude from this. I gave in one case attended with most distressing vomiting, a fair trial to external stimulants of the most active kind, but soon found that the patient would sink unless internal stimuli were resorted to. I have not given opiates in any form in congestion, for fear they might arrest the secretions so necessary to be excited. As to the stimulants causing heat and distress in the stomach, as he alleges, I can only say that my experience is directly the reverse of his; the thirst, which is usually very great in this disease, I have often relieved by a full dose of pulv. capsicum, which appears to me to have almost a specific effect in such cases. In congestion we know that the blood rushes to the centre, producing engorgements of the viscera, a condition of the system resembling inflammation. The consequence of this is thirst, sometimes vomiting or oppression, and almost always great tenderness on pressure of the stomach. Now the capsicum and other stimulants, by giving a centrifugal direction to the blood, relieves this engorgement of the viscera, and with it its effects; viz. thirst, vomiting, dyspnœa, and oppression. I recollect one case in which intense headache and restlessness consequent on the state of congestion of the stomach were instantly relieved by the exhibition of a very large dose of brandy. The remedies above-mentioned are to be continued till the skin becomes warm and dry. The doses being very cautiously diminished as the heat returns to the hands and feet. This is always a slow process when the disease is at all severe, requiring from twenty-four hours to three and even six days in one case under my charge. The return of warmth to the extremities is ordi-

narily one of the best indications of a favourable state of things, and we should observe closely that it does not recede. If it should, we will have to increase our doses or give them at shorter intervals, and apply frictions to the surface more vigorously than before. There is a great tendency in congestion to relapse after the patient has become warm, and is to all appearances free from danger. We should not consider the patient safe till copious black tarry evacuations have been procured from the bowels, and for this purpose it is best as soon as he is warm or nearly so, to administer full doses of oil of turpentine and castor oil in equal proportions every two hours. It is almost always extremely difficult to get the bowels to act after the congestion is relieved, and for this reason it is we should give the large doses and repeat them frequently till they produce the desired effect. In some cases it was impossible to act on the bowels by this or any other medicine till the patient was placed in a hot-bath, as hot as he could bear it, and then had strong brandy-toddy administered very freely. This seemed to overcome the torpor of the system much better than any thing else I have ever seen recommended, and is much safer practice than that of giving croton oil, which I have known resorted to in such cases, and generally with bad effect, being very apt to produce violent cramps, gripings, &c. The patient before this stimulating process is resorted to, does not seem to have sufficient strength, or rather is so much oppressed that the purgatives cannot act. During their action the most deadly sickness overwhelms him, and it is only after very free discharges, that he feels easy and relieved. After we have by these means relieved the congestion and excited the secretions, particularly that of the liver, the patient is out of all danger, and requires very little treatment. Some reaction is certain to occur, but it never rises to a high fever; requiring only subacid drinks, laxatives, and passes off in a day or two leaving the patient very weak, and often convalescence is tedious.

The above is an outline of the practice, most generally pursued in the congestive fever of this state, and with the greatest success. There are one or two remedies, however, which I have purposely passed over till now, as being of doubtful propriety—these are bleeding and the cold dash. If the views which I have taken above, with regard to the torpor of the capillary system, be correct, one would *a priori* scarcely expect to afford relief by still farther weakening the action of the heart and arteries, and thus increasing the effect of this torpor. We know that the authority of Armstrong is always appealed to, to justify blood-letting as a remedy in relieving congestion, but any one who has ever seen the cases in which he recommends it, would not, I imagine, feel himself authorized to apply the remedy to cases of congestion as met with here. We never do and should never expect to produce the condition of things in congestion, for which he advises the use of the lancet in the congestive forms of typhus. The oppression in these cases is confined to the action of the heart and arteries, and is easily overcome, perhaps in an hour or even less time. But how different is the condition of

the system in the genuine congestion of this country. The extremities are often cold, and bathed in a cold clammy sweat for three or four days, and the most powerful stimuli fail to produce the least warmth in them. It appears to us that experience would warn us against such a dangerous practice. There are nevertheless at this day several medical men whom I know to be in the habit of resorting to venesection as an ordinary remedy in congestion. One thing saves their patients in many cases (though many are lost by this practice), and helps to blind them to its dangerous tendency; it is this, that the blood will not flow, as it has deserted almost entirely the extreme vessels, and often the veins in each arm may be opened without the loss of more than a very few ounces of blood. I have myself only practised it in one case of congestion, the first one that occurred in my practice. I was unable to obtain more than three or four ounces of blood. This did not, however, seem to produce any sensible effect on the disease, which by means of the usual remedies was brought to a fortunate issue. I have, however, known of cases where immediate prostration followed the use of the lancet in congestion, from which nothing could rouse the patient. And I have repeatedly witnessed the bad effects of bleeding in producing congestion, in cases of fever, where by the exhibition of proper remedies it would never have occurred.

There are some peculiar conditions of the system in the fevers of this country, which an experienced man will readily detect as precursory to a state of congestion; and although there may be a quick pulse, heat of skin, thirst, and even headache, he will not hesitate to administer, without delay, pretty large doses of quinine and capsicum. He will not fear an increase of fever from these medicines, well knowing that they not only prevent congestion, but have a most happy effect in relieving the present sufferings of the patient. It would be difficult to describe these cases with sufficient accuracy for those who have not witnessed them at the bed side; they are noticed as being peculiar to the fevers of this country, and probably to those of all hot climates. The system becomes so much relaxed by the long continued heat of summer, and the almost absence of winter, that very different remedies are required from those in cooler climates, and in consequence no judgment should be passed condemnatory of this practice by persons who have not had a personal opportunity of witnessing it. The other remedy mentioned above, as of doubtful propriety, is the cold dash. Several medical friends in whose judgment I have great confidence, have spoken to me in warm terms of this, as a means of arousing the system in congestion, and one case in particular was detailed where after the failure of every other remedy, large quantities of cold spring water was dashed over the whole surface of the body, with the happy effect of equalizing the circulation, and restoring the warmth to the extremities. As far as I can ascertain it has not been often resorted to, not sufficiently often to ascertain its true value in this

disease. I have never used it myself as yet, not from any fear of its effects, but because I have found other remedies sufficient in most cases, remedies whose value was established. Though it is, however, the *anceps remedium*, a resort to it would be justified where other remedies failed, on sound therapeutical principles. Nothing produces such a shock to the nervous system as a sudden dash of cold water, and though we are unacquainted with the precise disorder of the function of innervation in the disease we are considering, there is good reason to believe that the torpor of the capillary system is intimately connected with, if not dependent on such disorder. A remedy which has such a powerful effect on the nervous system as the cold dash, would then be well worthy of trial in desperate cases, had there been no positive testimony in its behalf.

CASE I.—I was requested on the 7th of August 1838 to visit R. Yates, aged 22, who had been ill five days. He had had a chill every day of great violence, lasting from one to two hours, during which his skin was livid, and there was great oppression about the precordia. I found him in a state of great restlessness, constantly tossing himself from one side of the bed to the other; breathing with great difficulty as if there was a load on his stomach; pulse 120 per minute, small and soft; extremities cold, with a cold perspiration. There was too much heat about the stomach, which was tender on pressure; mind stupid; face looked greasy and livid; his nails blue. Tried, according to the practice which then prevailed, to take some blood, but could not get more than 2 or 3 oz. Applied sinapisms to the stomach and ankles, and gave the following prescription: hyd. chlorid. mit. gr. x., quin. sulph. gr. iv., M. ft. pulv., every two hours. At 3 P.M., six hours after this visit, I found my patient much worse, the medicines apparently doing no good. His pulse almost imperceptible at the wrist; the most extreme restlessness I have ever witnessed; extremities colder than before. I now applied large blisters to the inside of his legs and arms, and continued the above prescription, adding another grain of quinine to each dose, for three doses. 9 P.M. The blisters have commenced drawing; still there is great oppression about the precordia; eyes heavy and stupid; pulse very little improved; still very restless. Ordered the following: hyd. chlorid. mit. gr. xv. quin. pulv. camphor.  $\text{āā}$  gr. viij. M. ft. pulv. in tres. doses divid. of which one dose was to be taken every three hours.

August 8th.—The patient much better this morning; countenance more natural; less oppression in his breathing; pulse 100, soft and regular; the blisters drew well, but his hands and feet are still cool. Continue the quinine every three hours. 12 M. Still improving; extremities warm; more quiet; very little oppression in his breathing; bowels freely opened, with black tarry discharges; tongue dry, with a thick white coat. 9 P.M. Still continues to improve; ordered some simple purgative.

9th.—Says he is almost well; has some appetite; complains of nothing but a sore mouth, which is but slightly touched, though he has taken so much calomel. The above is the first case which I had to treat with the practice pursued. Of course I gave too much calomel, and not enough of the stimulants combined with quinine. Yet to me it is a valuable case, showing as it does that as a single remedy, quinine is far preferable to any other tonic or stimulant. The calomel which was taken, in such



large doses, lay perfectly inert in the stomach till that organ was excited to feel its presence by the stimulating effect of the quinine and the blisters.

CASE II.—I was requested in May 24th, 1840, to visit Mr. H., whom I found complaining of great pain and soreness over the whole surface of the abdomen; pulse small and quick; tongue red; skin of nearly the natural temperature. He had taken some cathartic medicine over night which had operated very severely, causing vomiting for several hours, profuse purging and great debility. Had him cupped over the abdomen, and applied emollient fomentations, which afforded great relief. He still, however, complains of headache, and pains in his back extending down the legs. At 2 P.M., he had some little fever with severe pain in the back and across the loins; pulse quick and weak. At 6, his fever is going off with a profuse sweat, which relieves his pains, but seems to weaken him. I remained with him, and in the course of an hour, his skin was cool and relaxed, with a rather clammy perspiration on the legs and arms; pulse very weak and quick; constant moaning, though when questioned, says he feels no pain. Applied sinapisms to legs, arms, and stomach; but soon took them off, and substituted blisters in their places, and also placed one on the back of the neck. Gave sulph. quinine gr. iij., which he vomited up with great distress. I had to wait for several hours before he would retain any thing on the stomach, which was in a very irritable condition, consequent on his habitual intemperance. At 12 P. M. he is much worse, the blisters, except the one on his neck, not commenced drawing; extremities perfectly cold to the trunk; a profuse cold clammy sweat pouring out of the whole surface of the body; very restless, disposed to lie on his face; mind stupid; scarcely answers when spoken to. Had his legs and thighs rubbed for more than an hour with oil of turpentine and sinapisms applied to the inside of the thighs. At 4 A. M. there appears to be some reaction, his skin feels less relaxed, some slight warmth in the arms and thighs, pulse better. I now ordered the following prescription:—R. quin. sulph. gr. iij.; pulv. capsici, gr. v., hyd. chlorid. mit. gr. iv. M. ft. pulv., to be taken every two hours. This he retained better than the quinine alone, which I attributed to the capsicum, as this medicine usually agrees well with the stomach of an intemperate person. At 2 P. M. the blisters were taken off, reaction being pretty well established, and he has had several discharges, which were rather watery, each one better than the preceding; there was so much distress of stomach, that I could give only four or five doses of the above medicine. He continued to improve from this time, the discharges becoming black like coffee-grounds. On the 26th found him very much better; gave nothing but mild mucilaginous drinks to allay the irritated state of the stomach, and in the course of a few days he was walking about, though his stomach was very weak for eight or ten days.

CASE III.—Sept. 9th, 1841, visited a negro man belonging to Mr. J. B. Conger, who was attacked the day before with symptoms of cholera, violent vomiting and purging, which prostrated him very much. He then laid out on the damp ground for several hours, and when found, was cold and almost pulseless. Small doses of quinine and capsicum with calomel were administered, which afforded some little relief. At 6 A. M., the time of my visit, he was very restless, stupid, eyes half open, countenance sunk, breathing laborious; skin cold over the whole of the body, except just about the region of the heart, hands shrivelled as if they had been washed in ley, and

no pulse could be felt at the wrist. Had several operations during the night from the calomel, but they were thin and watery. As I had no mustard nor blistering ointment, had his extremities rubbed almost continually with brandy and pepper; and ordered the following prescription to be taken every hour:—Quinine sulph., camphor aa gr. x., pulv. capsic. gr. vi. M. ft. pulv. This course was pursued till 12 o'clock at night; blisters having been applied at 7 P. M., which was the earliest hour I could obtain them. He, however, vomited repeatedly, so that not more than two-thirds of the medicine administered was retained on the stomach. At 12 gave the medicine in rather smaller doses every two hours, as he was becoming rather more quiet. At daylight Sept. 10th, he was much better, the warmth evidently returning to the extremities, breathing much better, and pulse could be felt, which was quick and small. Continued the quinine, capsicum and camphor during the day, adding to it some calomel every three or four hours, and by night his hands and feet were almost as warm as natural; had during the night several black bilious discharges, and was in fact entirely relieved. I did not see him again, but in a week's time, he was walking about convalescent. In this case the quantity of quinine administered was enormous, at least five or six drachms; 3ss. of it at least having been retained in the stomach, in the course of 36 hours, and yet no unpleasant symptom, deafness, giddiness, or headache followed. It may be that a smaller quantity would have answered, and I am inclined to believe it would, yet in such desperate cases as the above, where the medicine is apparently producing no effect, we can scarcely restrain ourselves from giving it through fear of doing mischief.

The above detailed cases will convey some idea of congestive fever to those who have never witnessed a case of it. We frequently meet with slighter cases which are easily relieved in the course of four or five hours by a vigorous practice. And it is always best in every case to commence with an active course, as we cannot know how violent it may become in a short time. If taken in time, not more than one in twelve or fifteen need be lost.

GRAND GULF, August 23d, 1843.

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ART. VI.—*Enteritis—with Cases, exemplifying the decidedly beneficial effects of Blood-letting, and the Sedative Treatment.* By P. M. KOLLOCK, M. D., of Savannah, Georgia.

For some years my attention has been arrested by a peculiar form of disease, from which, it appears, that no section of our country is entirely exempt, but which probably is more endemial to warm and miasmatic regions.

The disease is peculiar, by reason of the extreme violence of its onset, the imminent danger with which it menaces the life of the patient, the ex-